

# Laucks<sup>81</sup><sub>YEARS</sub>

## Testing Laboratories, Inc.

940 South Harney St., Seattle, WA 98108 (206) 767-5060 FAX 767-5063

## Certificate

Chemistry, Microbiology, and Technical Services

CLIENT: Alaskan Copper Works  
P.O. Box 3546  
Seattle, WA 98124  
ATTN: Raphael

LABORATORY NO. 15732

DATE: April 13, 1989

PO#: M9423

REPORT ON: WATER

### SAMPLE

IDENTIFICATION: Submitted 03/31/89 and identified as shown below:

- 1) 3-2-3200-M9423
- 2) 3-7-3200-M9423
- 3) 3-9-3200-M9423
- 4) 3-14-3200-M9423
- 5) 3-16-3200-M9423
- 6) 3-21-3200-M9423
- 7) 3-23-3200-M9423
- 8) 3-28-3200-M9423
- 9) 3-30-3200-M9423

### TESTS PERFORMED AND RESULTS:

	<u>parts per million (mg/L)</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Chromium	0.90	1.1	0.11	0.68	0.26
Copper	0.33	0.42	0.054	0.27	0.092
Nickel	0.81	0.64	0.12	0.72	0.29
Zinc	0.024	0.058	0.010	0.034	0.010



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AKC-0015030

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Alaskan Copper Works

LABORATORY NO. 15732

### parts per million (mg/L)

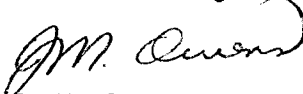
	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>Method Blank</u>
Chromium	0.66	0.48	0.54	2.3	<0.004
Copper	0.18	0.12	0.26	0.86	<0.004
Nickel	1.0	0.38	0.34	1.7	<0.020
Zinc	0.040	0.020	0.018	0.062	0.006

### Key

< indicates "less than"

Respectfully submitted,

Laucks Testing Laboratories, Inc.

  
J. M. Owens

JMO:1aj



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AKC-0015031

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## APPENDIX

## Matrix Spike/Matrix Spike Duplicate Report

		parts per million (mg/L)				mg/L				
Sample	Analyte	Spike Added	Sample Result	MS Result	% Rec	MSD Result	% Rec	RPD	Control Limits	
									RPD	REC
1	Chromium	0.100	0.90	*	*	1.18	*	*	6	67-127
1	Zinc	0.100	0.024	0.10	76.	0.10	78.	3.	6	64-127
1	Copper	0.100	0.33	0.45	118.	0.44	114.	3.	7	65-122
1	Nickel	0.200	0.81	1.0	99.	1.0	96.	3.	5	66-125

\* Samples are spiked prior to preparation and analysis at a level deemed to be generally appropriate to the average sample processed in the laboratory. In this case, the level of analyte already present in the sample was large enough to make an accurate determination of spike recovery impossible.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

Rec = Recovery

RPD = Relative Percent Difference



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